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**O'Hara et al.**

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(54) **RECIRCULATE AND FILTER AIR TO FORM AIR BARRIER IN IMAGE FORMING APPARATUS**

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This patent is subject to a terminal disclaimer.

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See application file for complete search history.

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(57) **ABSTRACT**

An image forming apparatus includes a substrate receiving member, a fluid applicator unit, and an air recirculator assembly. The substrate receiving member may selectively receive a substrate. The fluid applicator unit may selectively eject a first set of drops to the substrate received by the substrate receiving member in a print mode and a second set of drops in a maintenance mode. The air recirculator assembly may direct air to form an air barrier across the print zone to redirect at least one of aerosol and particulates from crossing through the air barrier and onto the substrate, to filter the at least one of the aerosol and particulates to form filtered air, and to form the air barrier with the filtered air.

**15 Claims, 6 Drawing Sheets**

